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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,001	07/06/2001	Alexander Ganin	15-XZ-5881	8764

23446 7590 02/26/2003

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EXAMINER

CHURCH, CRAIG E

ART UNIT PAPER NUMBER

2882

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

Applicant(s)

Examiner

Group Art Unit

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 12/4/02
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed in** accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1, 2, 5-7, 9-21, 23 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1, 2, 5-7, 9-21, 23 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1, 2, 5, 9 and 23 are rejected under 35 U.S.C. § 103 as being unpatentable over Khutoryansky et al (5734694). Lines 50 of column 4 to 38 of column 6 explain operation of the disclosed tomographic system which includes presetting parameters such as sweep angle (travel distance), fulcrum (focal plane), slice thickness and speed. Switches 716 ◀/▶ specify left or right sweeping, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to operate them in sequence since the source scanning in either direction is limited. The Auto Tomo function provides for imaging multiple slices.

Claims 6, 7 and 10-21 are rejected under 35 U.S.C. § 103 as being unpatentable over Khutoryansky et al (5734694) in view of Tam

(5717732) and Sata (5,412,702). Tam teaches a linear tomograph including x-ray source 10 and digital detector array 12. Khutoryansky does not detail the structure of his detector, and it would have been obvious to employ therefor any known detector such as the digital detector taught by Tam in order to provide real time display. Sata teaches an x-ray tomograph equipped with a display 40 for simultaneously showing multiple tomographic views, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to equip the Khutoryansky with such means to speed up medical diagnosis.

Applicant's arguments filed December 4, 2002 have been fully considered but they are not deemed to be persuasive. Although applicant observes that Khutoryansky moves his source/detector assembly to the center position after a scan, this has no bearing whatever on patentability of the claims since they do not recite where the source/detector are placed after a scan, ie a storage position, but only that at the *beginning* of a scan they are moved to the prep position, defined by applicant on page 3 of the specification simply as the opposite ends of the scan range. Nowhere does Khutoryansky state that his scans begin at the center of the scan range as is absurdly implied by applicant.

Applicant's assertion that Khutoryansky's HOME position is always at the head end of the table is a misrepresentation of the patent teaching as reference to "head end" is merely an example. Lines 28-31 of column 6 read:

HOME 803 - moves the tubecrane to the HOME (head end, for example) position and positions the x-ray tube and bucky for the beginning of a linear tomographic sweep

That Khutoryansky provides several different sweep angles (table in column 5) is unequivocal evidence that there are many different HOME (or prep) positions, ie one for each end of each sweep range.

Similarly, lines 63 of column 5 to 11 of column 6 explicitly reveal that switch ◀ commands longitudinal sweeps to the LEFT, and switch ▶ commands longitudinal sweeps to the RIGHT in spite of applicant's insistence that the patent teaches no such functions.

Contrary to applicant's assertions that Khutoryansky does not provide for acquiring multiple slice images, this is precisely the function of the AUTO tomographic mode described in lines 19-22 of column 8 and lines 52-62 of column 5. In this mode the system automatically images the number of slices prescribed by the operator at predetermined focal plane increments:

When tomographic mode is selected (TOMO ON), the fulcrum height is incremented after each exposure in predetermined steps for the number of steps selected for the procedure.

This is an explicit teaching that multiple slice images are to be obtained.

The section of column 1 of Khutoryansky referred to by applicant that mentions film is a discussion of prior art devices and not of patentee's invention. The citation in column 3 noted by applicant says nothing about film as argued, but rather relates only to the bucky, which is short for bucky grid (an antiscatter device commonly used with both film and solid state array sensors).

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Nowhere in the patent is the Khutoryansky tomography method limited to film as represented by applicant.

The step of simultaneously displaying forward and reverse images is not taught by Khutoryansky, but simultaneous display was common and was taught by Sata and would have been obvious for its diagnostic versatility.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication should be directed to Examiner Church at telephone number (703) 308-4861.

Craig E Church

CRAIG E. CHURCH
Senior Examiner
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